# National Significant Wildland Fire Potential Outlook

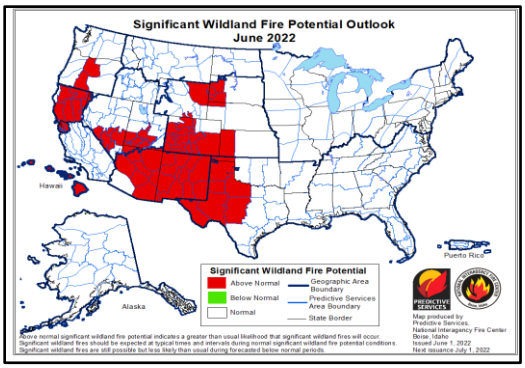
**Predictive Services**
**National Interagency Fire Center**

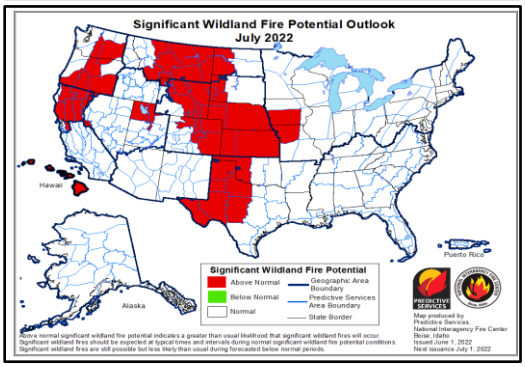
**Issued: June 1, 2022**
Next Issuance: July 1, 2022

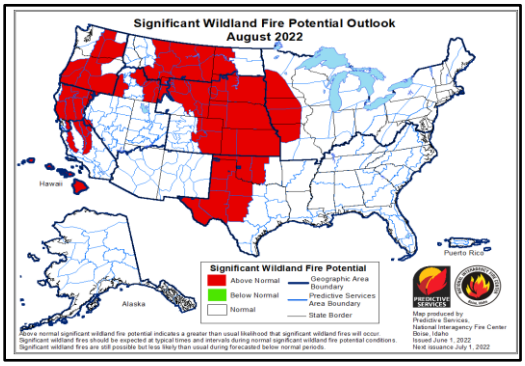
**Outlook Period – June through September 2022**

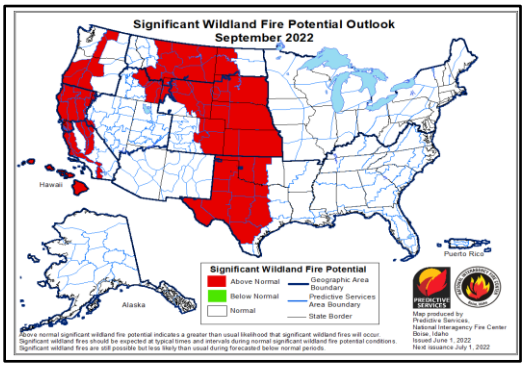
***Executive Summary***

The significant wildland fire potential forecasts included in this outlook represent the cumulative forecasts of the ten Geographic Area Predictive Services units and the National Predictive Services unit.




Fire activity increased in May, mostly across the Southwest Area, with activity also across portions of California, the southern Great Basin, and southern Colorado. However, fire activity decreased in the Southern Area and Eastern Area. Year-to-date acres burned for the US is approximately 112% above the 10-year average, with nearly 88% of the total acres burned from the Southwest and Southern Areas.

Most of the West, Plains, and Texas remain in drought, with areas of drought in the Southeast and Hawai'i. Temperatures were above normal across the Southwest, Texas, and east of the Mississippi River, with below normal temperatures across much of the northern Intermountain West. Little snow remains across California and the southern Rockies, but snowpack in Washington and the northern Rockies is above normal for the end of May due to cool, moist storms thus far this spring.

Climate outlooks indicate below normal precipitation is likely across much of the Plains through the central Rockies to the Northwest, with above normal temperatures likely across most of the contiguous US (CONUS) through summer. Critically windy and dry periods are likely to continue through mid-June for the Southwest and southern Great Basin. The North American Monsoon is likely to arrive on time and be robust this summer, but potential early moisture surges during June could result in periods of lightning across the Southwest, Colorado, and the southern Great Basin.

Above normal significant fire potential is forecast for the southern High Plains through September, spreading across much of the Plains by August into September. Drier than normal conditions forecast in summer may lead to above normal potential developing across the western Mid to Upper Mississippi Valley in July and August.

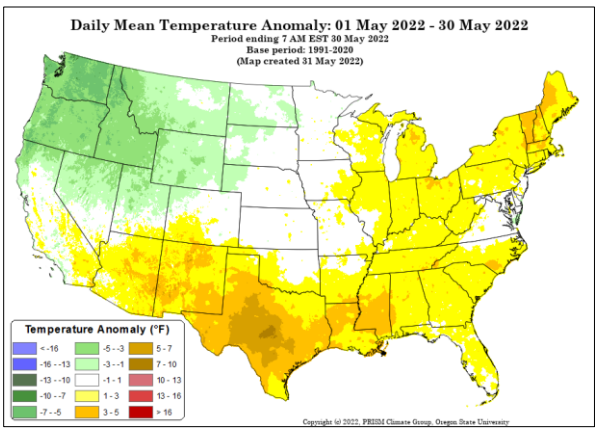
Most of the Southwest, southern Great Basin, and southern Colorado is forecast to have above normal significant fire potential in June, before returning to normal in July. Above normal significant fire potential is forecast across northern California and the lee sides of the Hawai'ian Islands through September, with above normal potential spreading into the southern Sierra and Coast Ranges of southern California in August and September. Above normal potential for central Oregon in June will expand across most of the Northwest by August, with above normal potential remaining in the Cascades and western Oregon in September. Central and eastern Montana east of the Continental Divide and much of Wyoming are forecast to have above normal potential July through September as well. Portions of southern and eastern Idaho are also forecast to increase to above normal potential in August and September.

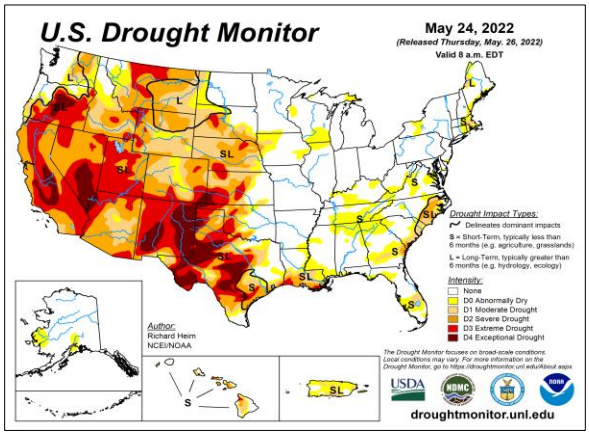
***Past Weather and Drought***

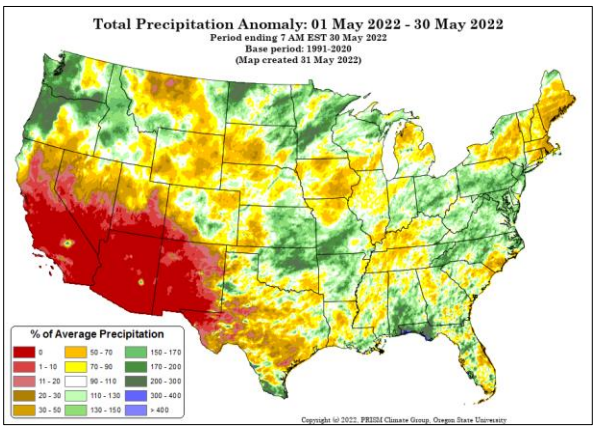
Much of the Southwest, California, central and southern Great Basin, and Montana, east of the Divide received below normal precipitation in May, with portions of southern California, southern Nevada, southern Utah, Arizona, and western New Mexico receiving no rainfall last month. Below normal precipitation was across much of New England and southern Florida as well. Much above normal precipitation was observed from eastern Montana through North Dakota and into northern Minnesota. Above normal precipitation was observed across the portions of the Northwest the central and northern Plains, with near to above normal rainfall observed from portions of the northern Gulf Coast to the Mid-Atlantic. May temperatures were above normal for the Southwest through Texas into the Southeast, with near to above normal temperatures in the Midwest and Northeast. Below normal temperatures were observed from northern California and the Northwest east into the northern and central Plains.

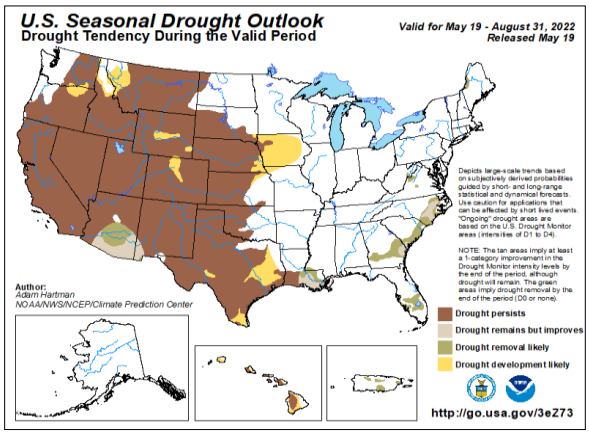
Snowpack continued to melt in May, with very little snow remaining across California into the central and southern Rockies. However, snowpack continues to melt much slower across the Northwest, Idaho, and Montana due cool temperatures and above normal precipitation. Overall, drought continues across nearly 90% of the West and much of the Plains. Drought intensification was observed across much of the Southwest, California, Nevada, and Utah, with drought improvement or removal noted across portions of the central and southern Plains, Southeast coast, and the Florida Peninsula.

Fire activity continued to increase in the Southwest during May, with the geographic area now at preparedness level five. Fire activity also continued to slowly increase in California, Alaska, the southern Great Basin, and the Rocky Mountain Area. However, the Southern and Eastern Areas observed a decrease in fire activity in May, except for a brief period in increased fire activity across Texas due to record high temperatures and strong south winds May 17-19. Overall, periods of increased activity coincided with widespread dry and windy conditions from the Southwest through into the High Plains. Overall, most locations in the Southwest, southern Great Basin, and southwest Colorado are reporting energy release component values above the 90$^{th}$ percentile. The national preparedness level remains at two, with continued significant fire activity in the Southwest, but activity elsewhere remaining low to moderate.



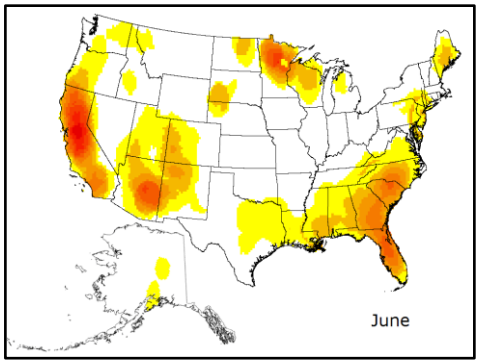



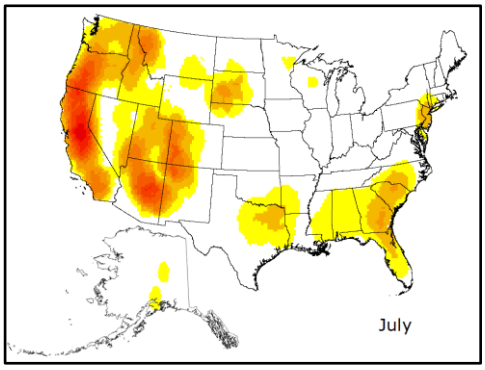



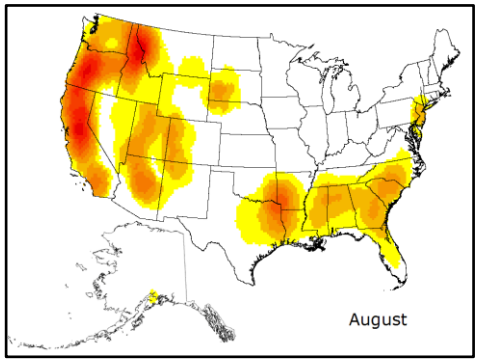

**Left: Departure from Normal Temperature (top) and Percent of Normal Precipitation (bottom)** *(from PRISM Climate Group, Oregon State University).* **Right: U.S. Drought Monitor (top) and Drought Outlook (bottom)** *(from National Drought Mitigation Center and the Climate Prediction Center)*

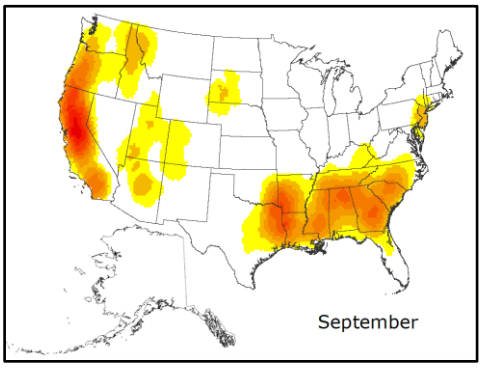
***Weather and Climate Outlooks***

La Niña conditions remain, with below average sea surface temperatures (SSTs) over much of the equatorial Pacific Ocean. SSTs continue to cool in May, with moderate La Niña conditions present. However, SSTs are forecast to warm into the summer with the Climate Predicter Center (CPC) forecasting La Niña to weaken with neutral or weak La Niña conditions forecast by late summer into early fall. The negative Pacific Decadal Oscillation (PDO) continues as well. A moderate Madden-Julian Oscillation episode is ongoing and forecast to continue through early June before weakening. However, impacts to the fire season forecast are limited as La Niña remains dominant at this time.




**Normal fire season progression across the contiguous U.S. and Alaska shown by monthly fire density (number of fires per unit area). Fire size and fire severity cannot be inferred from this analysis.** (Based on 1999-2010 FPA Data)

***Geographic Area Forecasts***

**Alaska:** Normal fire potential is expected in Alaska through September. The higher elevations of Alaska's Interior still hold remnants of last winter's impressive snowpack. While most of Alaska has received ample precipitation in recent months, the US Drought Monitor identifies a small area in southwest Alaska as abnormally dry.

The Climate Prediction Center forecasts above normal temperatures for southwest, northwest, and northern Alaska, with no clear signal elsewhere. The forecast for precipitation leans toward above normal rainfall over the Interior and South Central, with no clear signal for Southwest or the Panhandle. La Niña is likely to continue through the summer with gradual weakening, which typically correlates to a low or moderate wildfire season in Alaska.

Many small grass fires, mostly human ignitions, have started across the populated corridors of Alaska. Except for the Kwethluk Fire in southwest Alaska, overall wildfire activity through May has been unremarkable.

With little precipitation in the last few weeks, fine fuels are dry and green-up is just beginning in most areas. With abundant cured grass available, there is a high risk for wind-driven surface fires. Through the month of June, the sub-surface duff layers will warm and dry, allowing wildfires to become more difficult to control and extinguish by early July.

Near normal significant fire potential is expected over Alaska through September. The presence of La Niña is not likely to produce an above normal fire season in Alaska. Throughout June fuels will dry, first at lower elevations in southwest and south-central Alaska, then more generally throughout the Interior. The most intense weeks for Alaska's season typically come in late June and July, as the deepest layers of duff and largest surface fuels dry enough to sustain burning through damp periods. Season-ending rains are expected to arrive on time at the end of July or early August. By September, the limited hours of sunlight and lower sun angle will limit the spread of any remaining fires.

**Northwest:** The potential for significant fires across much of the Pacific Northwest is forecast to be near normal in June. However, elevated risk is forecast in central Oregon for June. For July, the elevated risk areas will expand to include southwest Oregon, southeast Washington, and southeast Oregon Predictive Services Areas (PSAs). By August, the elevated risk areas will expand further to also include north-central

Washington and west-central Oregon PSAs. In September, elevated risk of significant fires will diminish but continue in much of the Cascades as well as most of western Oregon.

Continuing the trend that began in April, May was much cooler than usual over both Oregon and Washington. The cool temperatures accompanied a steady series of Pacific frontal systems that also brought ample rain west of the Cascades and to northeast Oregon and southeast Washington. Monthly rainfall totals in those areas were well above average. The cool and wet conditions reduced snowmelt at higher elevations that normally occurs in May. The slow snowmelt left the region with well above average snow water equivalent for late May. Nevertheless, long-term unusually dry conditions continued despite the recent above normal precipitation.

Fifty-three human caused wildfires occurred across the geographic area in May. A small amount of lightning occurred, but no lightning caused fires recorded. The acreage burned was minimal at 76 acres, with one large fire in central Oregon burning 50 acres. Over thirty of the fires were in Oregon with most fires less than an acre. Prescribed burning activities decreased due to unfavorable alignment of drying conditions and a quick green-up in some areas.

Fire danger and fuel conditions are near normal currently in the geographic area. The continued cooler than average temperatures slowed the emergence of annual and perennial fine fuels. The moisture levels rose in most areas to bring the 1000-hr fuels to above average, while the 100-hr fuels hovered at average levels. The only area seeing drying of heavier fuels and highlighting potential for a quick spring transition is NW07 in south-central Oregon. The area received some relief, but overall, the duff and large fuels remain in a moisture deficit from a rain shadow for most of the winter and early spring. The area has been locked in drought for a couple of years now and had several large timber fires in 2021. The Columbia and Harney Basins received moisture at the right time to boost annual fuel production and will to be monitored. The increase in fine fuel production will be of great interest through June. The Blue Mountains, Wallowa Mountains, and northeast Washington received enough moisture to improve the fuel situation at lower and middle elevations. PSAs west of the Cascades have had decent moisture recovery to keep fire danger moderated thus far.

Climate outlooks for June suggest temperatures near or below normal for western Washington and northwest Oregon with above normal temperatures most likely in southeast Oregon. Precipitation in June is likely to be below normal for most of Oregon, with no clear trend foreseen for Washington. For July through September, above normal temperatures, and below normal rainfall are most likely for the geographic area.

**Northern California and Hawai'i:** Significant fire potential is expected to be above normal across most low and mid-level locations below 5500 feet, excluding the North Coast during June. The above normal footprint expands to include all elevations, except coastal areas during July and August. All areas are forecast to have above normal potential during September. Normally during June and July, one to three large fires occur within each PSA. During August, two to five large fires typically occur within most PSAs although the Bay Area PSAs average less than one. During September, most PSAs average one to three large fires excluding the Bay Area and Far Eastside PSAs, which are less than one. Hawaii significant fire potential is forecast to be above normal June through September across the leeward sides of the islands.

The weather pattern during May fluctuated between usually warm and dry periods and unusually cool and moist periods. Despite the unsettled weather periods, precipitation was below to well below normal across most of the geographic area excluding the North Coast where near to above normal rainfall occurred. Temperatures were near to below normal, with the coolest anomalies across the northern third of the geographic area. Snow water equivalent in the snowpack fell from around 25% of normal at the beginning of the month to less than 20% at the end of the month. Dead fuel moisture generally decreased through May 25, with all PSAs experiencing record high energy release component values for the date before modest moistening occurred to end the month. Herbaceous fuels rapidly cured below 2500 feet except the North Coast where green-up was still prevalent across the lowest elevations. Various phases of herbaceous green-up remained at the end of the month between 2500 and 6500 feet. Live shrub fuel moisture experienced mixed moistening and drying trends and was species dependent. Chamise, which

is dominant across the greater Bay Area and within the foothills of the Sacramento Valley, continued to cure and had become more flammable by the end of the month. Manzanita experienced moistening while sage fuel moistures peaked towards the end of the month.

The gusty wind patterns alternated between marginally dry westerly flows and dry northerly flows. The most notable strong northerly wind and low humidity period occurred May 19-20 within the Sacramento Valley. Another dry northerly wind period occurred May 23-25. Daily wildfire ignitions increased as fuels became more flammable during the latter half of the month with as many as 23 new ignitions on May 20, and large fires were reported across the Diablo-Santa Cruz Mountains and Sacramento Valley. Prescribed burning became more limited as the month progressed.

The weather outlook from June through September shows generally near to below normal temperatures for June and July and near to above normal temperatures during August and September. Near to below normal precipitation is expected through September. The weather pattern during June looks to be dry overall with just some minor moisture intrusions favoring areas near the Oregon border as the jet stream dips south at times, with lightning also possible. There is higher confidence in an active North American Monsoon this year west of the Continental Divide, with frequent intrusions into southern California and Nevada during July. The monsoon has the potential of ending early during September. The most likely months for lightning ignitions appear to be June and July for northern California. Critically dry wind events, whether they be westerly or northerly, will occur during June and should occur with normal to slightly above normal strength. Onshore flow is expected to trend a little deeper during July and August, with a return to alternating onshore and offshore wind flows expected during September.

Drought conditions are expected to intensify some during the summer, but likely not as dramatic compared to the previous two years due to less potential for extended hot periods. Regardless, dead fuel moisture will spend ample time at unusually dry and critically dry levels, especially away from the coast. Live fuels will continue to become more flammable starting with the lower elevations and transitioning upwards in elevation from June into July, with coincident critically dry dead and live fuels expected to increase during this period then continue into August and September. Herbaceous fuel forecasts and corroborating ground truth assessments suggest near to above normal fuel loading across most of the geographic area, with the higher anomalies found within the Sacramento Valley Foothills and portions of the Bay Area and Far Eastside PSAs in addition to large areas of Modoc County. Other fuel conditions that impact significant fire potential include large areas of blow-down due to the December storms across portions of the Tahoe, Eldorado, and Six Rivers National Forests in addition to the potential that tree mortality has increased due to the extended significant drought.

Sea surface temperature (SSTs) anomalies surrounding the Hawai'ian Islands are near to slightly above normal. Average temperatures were mixed with cooler than normal temperatures across the northern islands as well as most of the Big Island with near to above normal temperatures across the central islands. Temperatures are expected be near to below normal from June through September due to cooler trending SST anomalies. Precipitation during May was mixed but generally above normal with some areas like the Big Island receiving well above normal amounts, while other islands such as Moloka'i and Maui receiving below normal precipitation. The weather outlook through September forecasts generally below normal precipitation, although enhanced trade winds along the windward side of the islands due to prolonged La Niña conditions could alter that trend. Significant fire potential is projected to be above normal during June through September across the leeward sides of the islands due to cured and curing herbaceous fuels, intensifying drought, and periods of enhanced trade winds.

**Southern California:** A progressive weather pattern resulted in mostly onshore flow in May, and as such, heatwaves were brief and confined largely to inland areas. The marine layer has been pervasive this year compared to the past few years, which kept coastal areas especially cool. Precipitation in May usually dwindles to near zero as the "rainy season" draws to a close. This year was no exception as very little rainfall occurred during the past month except for the spotty morning drizzle near the lower coastal slopes. Frequent trough passages across the Pacific Northwest are common during La Niña patterns which is well established. This pattern may continue into the first few weeks of June, which may keep the coastal areas enshrouded in marine layer stratus more often than normal.

Snowpack peaked at the start of the calendar year and remains well below normal. Only the highest elevations of the Sierra have any appreciable snowpack, with the rest of the basins recording 0% of average. Drought intensified during the past month. Currently, exceptional drought encompasses much of the central part of the state, especially the central Sierra and interior sections of the central coast. The Mojave Desert recorded one of its driest winters in recent years and new growth on desert shrubs and plants was negligible this spring.

All seasonal grasses have cured for the season. Due to the extremely isolated nature of late winter precipitation, fuel loading is less uniform than usual. In general, the Sierra Foothills and Kern County Mountains benefitted from timely, late season rains more than the rest of the geographic area. The central coast interior and the mountains surrounding the Inland Empire had less winter rain and subsequent grass growth.

Sea surface temperatures remained locked in a mature La Niña phase as evidenced by the cold waters over the equatorial Pacific. There is some evidence that this pattern may result in a stronger than normal monsoon across the Southwest. While the axis of heavier than normal rainfall may remain well east of the geographic area, above normal rainfall is possible over the deserts and portions of the Sierra in July. The monsoon may be more active than normal in these areas, resulting in a higher number of thunderstorm days. It is difficult to predict the nature of these storms (i.e., wet vs. dry), but there is often a higher proportion of wet storms during an active monsoon. While the monsoon may end up being more active than usual, it may be shorter than usual with thunderstorms activity waning in August.

The likelihood of a warmer than normal summer is more certain with most model guidance indicating warmer than normal temperatures across both southern and central California. The greatest temperature deficits may be over the interior regions, which would only serve to put additional stress on drought-stricken vegetation. As such, fuels will remain highly receptive to ignition during peak heating hours. Dead fuel moisture will likely continue to surpass record low levels, with the exception possibly being the Sierra higher density forests (above 7,000 feet) and the eastern desert due to the expectation of increased precipitation. Live fuel moisture is currently well below normal, and many areas will likely see fuel moisture reach critical levels in July, which would be four to six weeks ahead of schedule.

Thus, due to forecast hotter than normal weather and very dry fuels, significant fire potential will likely rise to above normal potential in much of central California by August. This higher-than-normal threat may expand to include much of the higher terrain of southern California in September.

**Northern Rockies:** Significant wildland fire potential in the Northern Rockies Geographic Area is forecast to be normal for June. In June, green-up will be ongoing, as it began late this year due to a cool, moist spring. Also, models indicate this pattern may continue through the first half of the month. July through September in areas east of the Divide are forecast to have above average significant fire potential due to ongoing drought and the potential for it to continue or worsen this summer. Areas west of the Divide are more uncertain due to the potential for a longer-lasting snowpack and adequate precipitation, with near normal significant fire potential forecast. Temperature and precipitation trends in June will be monitored for a potential change in the outlook.

La Niña has continued to be a driving factor in the weather this past month. Snow water equivalent (SWE) is currently near or above normal for most of northern Idaho and Montana, west of the Divide. East of the Divide, cooler than average temperatures and late season snowfall have helped, as SWE has improved for the mountainous areas of central Montana. In general, drought continues but has improved for most areas east of the Divide, with North Dakota experiencing significant improvement. Areas of north Idaho and most of northwest Montana have improved and are no longer in drought with SWE above normal but are still abnormally dry. Additional rain will continue to help reduce the chances of significant fires west of the Divide for at least the first half of June, and possibly through the summer.

Fuel conditions have improved lately, and green-up is occurring late this year, which has not reached its peak. This will help to reduce the risk of significant fires in June. Curing of fine fuels will probably begin in

late June or early July and become ready to burn quickly if the pattern becomes warm and dry. No significant fire activity has occurred for the month of May in the geographic area.

The ongoing La Niña pattern is expected to continue into the summer and weaken, with a chance of neutral conditions by late summer. This forecast transition is causing some uncertainty for the temperature and precipitation outlooks, which leads to greater uncertainty in the significant fire potential outlook. While drought persists, cooler temperatures and periods of light rain on fine fuels in southern Montana east of the Rockies into North Dakota, in addition to green-up, should result in normal fire potential for June. However, if there is either a lack of rainfall or temperatures are warmer than outlooks suggest, an early fire season may result towards the end of June. By July, ongoing drought, curing fuels, possible above normal temperatures, and below normal precipitation, will raise significant fire potential to above normal for Montana, east of the Divide.

**Great Basin:** Significant wildfire potential will gradually increase through June and July from south to north across the geographic area. Significant long-term drought has improved in some areas but remains across much of the Great Basin. Despite late fall and early winter precipitation that could have increased the likelihood of a greater fine fuel crop in western Nevada, drier conditions the last few months have stunted some of the grass growth. Therefore, shorter grass overall will limit fire potential in the lower elevations going into the fire season, although fuels will be continuous. However, wetter conditions in parts of Idaho in May that will continue into the first half of June will likely trigger an increase in fine fuel growth and be available later in the fire season. Fire activity will be higher in western Nevada and southern Idaho than in 2021, but likely still near normal, unless the grass growth in Idaho is more significant when it cures in July and August.

Farther south, the weather has remained warm and very dry throughout May, with dry conditions continuing into June, although periods of cooler temperatures are likely. Green-up is winding down in the southern Great Basin, with wetter and cooler weather at times over the northern half of the Great Basin. Increased fire potential is expected through June over parts of southern Nevada that have standing dead fuel from last year, and over the higher terrain of southern Utah into the Arizona Strip where drought continues. Snow is expected to melt more quickly in the north from late June into July, which will lead to a shift into fire season in the north. However, with the cooler and wetter conditions in early June, curing in the north will take place from late June into July, with a delay to the start of fire season. By August, fire activity will likely increase in Idaho and Wyoming.

Temperatures over the last 30 days have been below normal across the northern half of the Great Basin and near to above normal over southern areas. Precipitation was above normal in central Idaho and well below normal over the southern half of the Great Basin. Wetter storms occurred in November and December across Nevada, Utah, Idaho, and Wyoming, which brought the snowpack to above normal. Wetter conditions continued in Idaho and Wyoming over the last 30-60 days keeping the snowpack well above normal. Farther south, the snowpack continues to melt and has dropped to 20-50% in Nevada and Utah. The drought has improved across Nevada, Utah, and the Arizona Strip from this time last year, but will likely start to intensify again with the recent drier conditions. Severe to extreme drought is ongoing across the southern two-thirds of the Great Basin, with pockets of exceptional drought in southern Nevada. Moderate to severe drought, with some pockets of extreme drought is ongoing across Idaho and Wyoming but will likely improve with the recent wet and cool weather.

Green-up is winding down over the southern half of the Great Basin but will continue farther north through June due to wetter and cooler weather. There could be multiple cheat grass crops farther north as well, especially in southwest Idaho. Fuel moisture is below normal across the southern half of the Great Basin due to warmer and drier weather. Rains that occurred in August and September 2021 over the eastern half of the Great Basin triggered some new areas of fine fuel growth. These fine fuels could add to the fine fuel load for the 2022 fire season in areas that were not compacted by snow. However, with minimal new fine fuel growth due to drier conditions and long-term drought, this would likely take the fine fuel loading to only near normal in some areas. Otherwise, carryover fine fuel loading remains low across most of Nevada, Idaho, and Wyoming with carryover not expected to be a significant issue this fire season. The only exceptions will be over parts of southern Nevada where standing dead fuels will carry over from last year,

and over parts of northwest Nevada, northwest Utah, and southwest Idaho where there was some new fine fuel growth. Concerns about significant fine fuel growth over western Nevada have diminished due to very dry conditions the last few months. Any grass that does grow will likely be short; however, it will be continuous in many areas. We will continue to monitor all fine fuel loading heading through June and July, especially in northern areas with the May and June storms.

Overall, fire activity remains low across the Great Basin, which remains at preparedness level one. A few small fires occur at times, but they have been easily extinguished. In May, the only fire of size was 97 acres in southwest Utah.

La Niña remains strong and a main driver of the weather pattern but may transition to neutral later in the summer or the fall. Therefore, it will continue to impact the weather for the Great Basin, with cooler and wetter weather at times through June in the north. Drier and warmer conditions will continue in southern portions of the Great Basin. Warmer and drier weather will develop over northern areas by July and August as the monsoon develops. The monsoon is expected to be robust in Utah and parts of southern Nevada again this year, which should decrease fire danger in the southern Great Basin.

Fire potential is expected to increase in June in the south and remain low over the northern half of the Great Basin. Due to cooler and wet weather throughout May and June, fire season will likely be somewhat delayed in Idaho and Wyoming, especially at higher elevations. Above normal fire potential will continue in June in southern Utah, the Arizona Strip, and southern Nevada, especially at higher elevations due to rapid snowmelt and ongoing or intensifying drought. The pockets of above normal fine fuel loading in southern Nevada would also allow elevated fire potential in lower elevations in June.

Considering the monsoon is expected to start on time and be robust, moisture will likely diminish the fire potential threat in far southern areas of the Great Basin by July, pushing the above normal threat north into northern Utah and into the higher terrain of the Sierra. By August into September, after Idaho and Wyoming have had a significant amount of time for fuels to dry out and cure, parts of central and eastern Idaho into Wyoming will also see above normal potential. The possible above normal fine fuel loading in southwest Idaho could bring above normal fire potential once fuels dry, especially in August, and could last into September when fall cold fronts bring more wind.

**Southwest:** Above normal significant fire potential is forecast across the geographic area except for the eastern plains of New Mexico and southwest Arizona in June. The areas of above normal potential are expected to return to normal significant fire potential with the arrival of the monsoon during July and continue through September.

Beyond a few small areas of the region, the Southwest Area has been experiencing much drier than normal conditions over the past 90 days. As spring winds down and summer arrives, the forecast is for a continuation of warmer and drier than normal conditions, with continued potential for large storm systems to impact the geographic area from the west and northwest well into June. As these systems move across the Intermountain West, they will be accompanied by stronger than normal winds for the time of year. In addition, backdoor cold fronts into the eastern portions of the geographic area are likely to become more regular. Despite these fronts, high temperatures are expected to remain above normal with drier than normal conditions overall. Periods of cooler weather are likely across both the far northern tier of the region, via storm system passages, and eastern portions of the region, via the backdoor cold fronts. These backdoor cold fronts will be increasingly likely to supply moisture from the east through the next few weeks gradually leading to more regular lightning events farther west toward the Divide. Although relative humidity values will likely be on the rise during these periods, overall precipitation coverage will remain isolated to scattered until the monsoon arrives. Given the widespread dry fuels and near record-to-record low fuel moisture, any lightning will be problematic until low-level moisture is more frequent.

Without backdoor cold fronts and their associated moisture, the geographic area will see increasing significant fire potential through June. Significant fire potential will be of longer duration coincident with hotter than normal temperatures, continued drier than normal conditions, and continued periods of abnormally strong winds.

The arrival of the North American Monsoon by late June to mid-July will result in low (i.e., normal) significant fire potential for the Southwest Area July through September. Some significant drier periods and warmer than normal temperatures are possible across the eastern plains of New Mexico during July and August. However, significant fire potential should remain close to normal overall, although some localized, more active periods could occur over the eastern New Mexico.

**Rocky Mountain:** Above normal significant fire potential is expected to continue across portions of the Rocky Mountain Area (RMA) from June through September due to the persistence and expansion of above normal temperatures and below normal precipitation during the outlook period. In conjunction with long-term precipitation deficits and ongoing drought, the warmer and drier pattern will continue to promote the availability of receptive fuels as well as rapid fire spread during wind events. Additionally, there could be a period in June and July with more than average lightning ignitions preceding the onset of wetter thunderstorms during the monsoon.

La Niña strengthened slightly during April and May as cold sea surface temperatures continued to be observed across the equatorial Pacific. La Niña maintained an influence in temperature and precipitation patterns across the RMA. A north to south split in temperature anomalies persisted across the RMA, with temperatures considerably cooler than normal across the north, while above normal temperatures persisted across Colorado, Nebraska, and Kansas. Episodes of stronger downslope flow off the Laramie Mountains and Front Range eastward across the High Plains maintained a drier regime, with periods of afternoon relative humidity in the single digits and teens accompanying strong wind events.

A drier than normal pattern persisted across the geographic area in March and April except for above normal precipitation across portions of the High Plains. Snow cover was absent across the High Plains throughout the early spring months. The much drier conditions led to precipitation deficits area-wide, with continued snowmelt across most of Wyoming and western Colorado. However, a few cold and wet storms in late April and May delivered much needed precipitation. During this cool, wet period 12 to 16 inches of new snow fell across the mountains of Wyoming, northern Colorado, and the Front Range, with lesser amounts of snow and brief wetting rains extending across the foothills and adjoining plains of eastern Colorado. Overall, below normal precipitation anomalies have intensified across the western half of the RMA, especially southwest Colorado and the West Slope. Drier than normal conditions also remain across portions of western South Dakota, the Nebraska Panhandle, and western Kansas.

The US Drought Monitor continues to portray severe to extreme drought across portions of the RMA since January. The drought has intensified and expanded to include the High Plains, with severe to extreme drought in western Wyoming and east-central Nebraska. Extreme to exceptional drought is now observed across portions of far southern Colorado and southwest Kansas. Recent above normal precipitation across eastern portions of the Plains has improved drought conditions across eastern South Dakota into eastern Kansas. However, severe to extreme drought persists across all of Nebraska. Soil moisture anomalies due to evaporation remain extremely low in these areas from long-term precipitation deficits observed since the 2020-2021 winter season.

Along and east of the northern Front Range Foothills and Laramie Mountains, a robust green-up is ongoing, and recent precipitation has mitigated the dry fuel conditions across the Pike National Forest and areas south of the Palmer Divide in southeast Colorado. Across southwest and south-central Colorado, energy release component values have elevated above the 80$^{th}$ percentile, with a few sites in the San Juan Mountains and San Luis Valley above the 90$^{th}$ percentile. Areas of very dry fuels exist along the lowest elevations, generally below 7,500 feet, and will quickly carry fire with wind events. Due to the warmth, high mountain ranges throughout the interior of Colorado are experiencing early snowmelt, with fuels around 8,500-9,000 feet now exposed and beginning to dry.

Forecast seasonal temperatures, residual snow cover, and occasional wetting rain will continue to keep fire danger indices lower in most areas west of the Divide through the first week of June. For the remainder of June, lower elevation sites across southern Colorado and most areas east of the Divide will resume drier-than-normal conditions with fine fuels in many areas curing. Fuels are expected to quickly dry out

with above normal temperatures expected across the RMA during the latter half of June. With the warmer temperatures and the persistence of receptive fuel beds, lightning ignitions will likely increase, especially over southern and western Colorado during late June and into July preceding the arrival of wet monsoon thunderstorms.

Above normal significant fire activity that began in late December continued through the winter and spring months, with large fires reported during periods of warm, dry, and windy conditions. A few large fires occurred in late April and May; one in the Nebraska National Forest that burned over 4,000 acres in very dry, drought-stricken fuels. Smaller fires burned as well across southern Colorado in the San Juan Mountains and the San Luis Valley.

For the summer, La Niña will maintain a warm and dry influence over the RMA. Climate models now indicate La Niña will gradually weaken but still have an influence through the summer. Even though the first seven to ten days in June are expected to be cooler with near normal precipitation across the area, the rest of June is forecast to become increasingly warm and dry across the entire geographic area. Ongoing snowmelt will be accelerated due to the above normal temperatures, with exposure of high-elevation fuels much occurring earlier than average for the season.

The outlook for the RMA is for above normal significant fire potential across southern Colorado and western Kansas to expand northward across Colorado to include eastern Wyoming and the Black Hills for June. Above normal significant fire potential is forecast across northern and eastern Colorado, Kansas, and Nebraska in June, then encompasses most of Wyoming and portions of the Black Hills and South Dakota for July, August, and September. With the onset of the North American Monsoon, storms are likely to produce more significant precipitation and facilitate a return to normal potential across portions of western and southern Colorado in July and August.

**Eastern Area:** Near normal significant fire potential is forecast across most of the Eastern Area May into August. Significant fire potential may increase to above normal in July and August across portions of the western Mid and Upper Mississippi Valleys.

Thirty to 90-day soil moisture and precipitation anomalies were near to above normal across much of the Eastern Area through the end of May. Drier than normal conditions remained along the New England Coast, with longer range drought conditions lingering across northern Maine.

Below normal temperatures are expected to persist across the western Great Lakes into June. Above normal temperatures are forecast over the southern and eastern tiers of the Eastern Area in June and much of the Eastern Area heading into July. Above normal temperatures are expected over the Mississippi Valley in August and across the Northeast into September. Above normal precipitation is expected over the western tier of the Eastern Area in June lingering over the Great Lakes into July. Below normal precipitation may develop over the eastern Mid-Atlantic in June. Below normal precipitation is forecast over the southern tier of the Eastern Area in July, possibly spreading northward into the Great Lakes in August.

Near to above normal fuel moisture is forecast over the majority of the Eastern Area through summer. Above normal significant fire potential may develop over the Mississippi Valley as the summer progresses, if the forecast warmer and drier trends develop.

**Southern Area:** Above normal significant fire potential is forecast throughout west Texas into the Texas and Oklahoma Panhandles in June, with above normal potential expanding across Texas into central Oklahoma as the summer progresses. Recent rainfall has mitigated the threat for June in western Oklahoma and perhaps portions of the Texas PSAs that have seen substantial wetting rain. Nonetheless, background long-term drought and nearly unanimous forecasts of continued very hot and dry weather should occasionally promote significant fire potential through summer.

Composites for temperature and precipitation anomalies based on a second year La Niña that continues into fall are also suggestive of hot and dry weather for much of Texas, Oklahoma, and Arkansas during

summer and early fall. This may become especially concerning in areas where fuel loading from recent heavy rainfall is followed by prolonged dry and hot weather that is forecast this summer.

The forecast for Florida and the coastal Southeast is of somewhat lower confidence due to conflicting signals. Tropical cyclone activity will be the key determinant of where fire risks are greater heading into fall but given little to no skill in forecasting seasonal impacts spatially, determining locations with tropical cyclone activity and heavy rainfall remain unclear. Nonetheless, with above normal oceanic heat potential and sea surface temperatures over the Gulf of Mexico and subtropical Atlantic, the Southern Area's entire coast could potentially be subjected to episodes of significant rainfall and tropical cyclone activity. Composites based on a second year La Niña that continues into fall suggest that areas from central and eastern Louisiana to the Florida Panhandle, the coastal Carolinas, and Virginia may be slightly more favored for repeated tropical cyclone activity, but the sample size is too small to forecast with any confidence. Those analogs also featured well below normal precipitation across the central and southern Florida Peninsula. Considering all this uncertainty, normal significant fire potential is forecast where drought is ongoing in portions of Florida, Georgia, South Carolina, and North Carolina. It should be noted that any of these areas could see an upgrade in subsequent outlooks depending on how June and the summer months evolve. Currently, central and southern Florida are of greatest concern. Portions of western Louisiana will also continue to be watched closely, as any continuation or worsening of the drought will allow downed trees and slash from 2020's Hurricane Laura to cure in time for the uptick in frontal passages this autumn.

***Outlook Objectives***

*The National Significant Wildland Fire Potential Outlook is intended as a decision support tool for wildland fire managers, providing an assessment of current weather and fuels conditions and how these will evolve in the next four months. The objective is to assist fire managers in making proactive decisions that will improve protection of life, property, and natural resources, increase fire fighter safety and effectiveness, and reduce firefighting costs.*

***For questions about this outlook, please contact the National Interagency Fire Center at (208) 387-5050 or contact your local Geographic Area Predictive Services unit.***

**Note:** Additional Geographic Area assessments may be available at the specific GACC websites. The GACC websites can also be accessed through the NICC webpage at:
**http://www.nifc.gov/nicc/predictive/outlooks/outlooks.htm**